

**Matrix for Identification of Students with SLD in Literacy**

Note: Benchmark assessments, continuous progress monitoring w/ Reading Curriculum-Based Measurement (RCBM), formative classroom measures, summative measurement, and other measures as a part of CLAS have identified that the student has not responded to increasing tiers of instruction in general education and with the provision of supplementary instruction. What further information needs to corroborate the presence of a specific learning disability impacting the area of reading?

<b>Basic Skill Area</b>	<b>Core Deficits</b> Subtypes of Reading Disabilities/Research Based Academic Processes: A deficit within the language system	<b>Diagnostic Measures that Assess Academic Skills related to Core Deficit Skills</b>	<b>Questions to ask</b>  <b>What does it look like?</b>	<b>Instructional Implications Effective Instruction</b> <ol style="list-style-type: none"> <li>1. explicit</li> <li>2. teaches to mastery</li> <li>3. provides scaffolding</li> <li>4. provides emotional support</li> <li>5. monitors progress</li> </ol>
<b>Basic Reading</b> Phonemic Awareness Phonics Word ID	<b>LANGUAGE: PHONOLOGICAL PROCESSING AND AWARENESS</b> <ul style="list-style-type: none"> <li>■ Insufficient knowledge that all words are comprised of phonologic segments</li> <li>■ Insufficient knowledge that all words can be decomposed into phonological segments; exacerbated by co-articulation of speech sounds in spoken language</li> </ul>	<b>Phonological Processing</b> Comprehensive Test of Phonological Processing (CTOPP) ages 5> Phonological Awareness Test (PAT) Lindamood Auditory Conceptualization Test (LAC) K-6  Rosner Test of Auditory Analysis K-6  Yopp-Singer Test of Phoneme Segmentation	<b>Phonological Processing</b> <ol style="list-style-type: none"> <li>1) Can the student identify and manipulate sounds in spoken language?</li> <li>2) Does the student confuse similar sounds, e.g., voiced/unvoiced, nasalized, or fricative and affricate consonants when speaking, reading and spelling?</li> <li>3) Can the student engage in accurate sound-symbol correspondence when spelling words and sentences?</li> </ol>	<b>Multisensory Structured Language Instruction</b> ( see Birsh,1999) <ol style="list-style-type: none"> <li>1. Phonology and phonological awareness (include articulatory gestures)</li> <li>2. Sound-symbol association</li> <li>3. Syllable instruction</li> <li>4. morphology</li> <li>5. syntax semantics</li> </ol>

	<p><b>LANGUAGE: PHONOLOGICAL PROCESSING AND AWARENESS</b></p> <ul style="list-style-type: none"> <li>■ Impairment of phonological processing, which interferes with linking corresponding speech sounds phonemes, to representative graphemes</li> <li>■ Impaired linking of articulatory gestures to similar sounds</li> <li>■ Written word recognition problems attributed primarily to difficulty processing phonological information</li> </ul> <p><i>Correlates to dyslexia</i></p>	<p><b>Phonological Processing</b></p> <p>Letter Word ID and Word Attack (W-J III) Basic Reading Cluster</p> <p>Phonics-Based Reading Test (PRT) WRM-R/NU Note inefficient decoding and word id on measures of connected text: QRI-4 GRADE</p>	<p><b>Phonological Processing</b></p> <p>4) Can the student accurately retrieve sounds for graphemes and words?</p>	
<p><b>Basic Reading</b> Phonemic Awareness Phonics Word ID</p>	<p><b>Accuracy Disabled</b></p> <ul style="list-style-type: none"> <li>■ Disabled in oral reading behaviors</li> <li>■ Impaired accuracy as a result of lack of automaticity (lack of lexicalization of words)</li> <li>■ Impaired reading comprehension on all measures correlates highly with word recognition</li> </ul>	<p><b>Accuracy Disabled</b> Untimed decoding measures: WIAT-II Pseudoword Decoding Word Reading WRM- Word Attack W-J III Basic Reading Cluster Letter Identification Word Identification Word Attack Running Records with deep analysis of miscues</p>	<p><b>Accuracy Disabled</b> 1) Does the student misread unfamiliar words, guessing similar words from first few letters? 2) Does the student substitute semantically correct words in text? 3. Does the student have frequent repetitions of phrases?</p>	

<p><b>Reading Fluency (Academic Fluency)</b> (highly correlated but independent of word recognition) Phonemic Awareness Phonics Word ID Vocabulary</p>	<p><b>WORD RETRIEVAL &amp; RAPID NAMING FLUENCY/ PHONOLOGICAL ACCESS</b> (not exclusive of phonological processing but consistent with phonological limitation hypothesis and highly correlated with fluency)</p> <ul style="list-style-type: none"> <li>■ Impaired retrieval of stored phonemes</li> <li>■ Long term memory retrieval difficulties</li> <li>■ Temporal, naming speed deficits</li> <li>■ Deficient processing of phonic patterns</li> </ul> <p><i>Correlates to dyslexia</i></p>	<p><b>Word Retrieval &amp; Rapid Naming</b> TOWRE Sight Word Efficiency Phonemic Decoding Efficiency W-J III Reading Fluency GORT-4 Fluency Scale Score (Rate &amp; Accuracy) QRI-4 Fluency NELSON-DENNY READING TESTS: Rate subtest (grades 9+) Connected Text Fluency: WCPM: Words Correct per Minute</p>	<p><b>Word Retrieval</b> 1) Does the student struggle to retrieve labels when speaking? 2) Is the student's rate of response to questions slower than the average student?</p>	
<p><b>Reading Fluency</b> (highly correlated but independent of word recognition) Phonemic Awareness Phonics Word ID Vocabulary</p>	<p><b>Slow Naming Speed/ Rapid Automatic Naming (RAN)</b></p> <ul style="list-style-type: none"> <li>■ Rapid naming of letters, numbers, colors and objects predicts fluency weaknesses and moderately</li> </ul> <p><b>Slow Naming Speed/ Rapid Automatic Naming (RAN)</b> correlates with phonological awareness measures/accessing phonological code</p> <ul style="list-style-type: none"> <li>■ Impaired speeded processing which manifests as a lack of automaticity of word and text reading</li> </ul>	<p><b>Slow Naming Speed/ Rapid Automatic Naming (RAN)</b></p> <p>See above for academic measures</p>	<p><b>Slow Naming Speed</b> 1) Does the student seem fatigued after reading a few sentences? 2) Is the student unable to read volume?</p>	

	<b>Processing Speed Deficit</b> <ul style="list-style-type: none"> <li>■ Lack of speed due to poor visual tracking, poor attention to visual detail</li> <li>■ Deficient connected-text reading and spelling</li> <li>■ Impaired fluency and comprehension but not phonological awareness or word recognition</li> <li>■ Rate disabled impaired on some comprehension measures</li> </ul>	<b>Processing Speed</b>	<b>Processing Speed Deficit</b> <ol style="list-style-type: none"> <li>1) Does the student leave items uncompleted on math worksheets?</li> <li>2) Does the student struggle with completing assignments in a timely fashion?</li> </ol>	
<b>Reading Comprehension</b> Slow inaccurate decoding	<b>VERBAL MEMORY: Short Term &amp; Working Memory</b> <ul style="list-style-type: none"> <li>■ Poor working memory for verbal and/or (sound-based) information</li> </ul> <p><i>Note: Tasks of STM do not count as an independent variable predictor unless associated with weak phonological awareness</i></p>	<b>Short- Term and Working Memory</b>	<b>Short Term and Working Memory</b> <ol style="list-style-type: none"> <li>1) Does the student struggle to remember simple directions with more than one step?</li> <li>2) Does the student read so slowly that he fails to retain information?</li> <li>3) Are complex math word problems, when read to him, difficult?</li> <li>4) Does the student have difficulty with rote memorization in the classroom (e.g., state capitals, multiplication facts, etc.)?</li> </ol>	

<p><b>Basic Reading</b>  <b>Reading Fluency</b>  <b>Reading Comprehension</b>  <b>Written Expression</b></p>	<p><b>DOUBLE DEFICIT MODEL</b></p> <ul style="list-style-type: none"> <li>■ Deficits in phonological processing when combined with rapid naming weaknesses, comprise most severe LD profile</li> <li>■ Some students well remediated in phonological processing may perform well on standardized tests but struggle representing sounds in applied spelling, confirming phonological processing weaknesses</li> </ul> <p><i>Correlates to dyslexia</i></p>	<p><b>Double Deficit Model</b></p> <p>Same as above</p>	<p><b>Double Deficit Model</b></p> <p>1) Does the student have significant delays in all aspects of literacy?  2) Is the student a very slow, labored reader</p>	
<p>Spelling/ Decoding Efficiency</p>	<p><b>Orthographic Processing</b></p> <ul style="list-style-type: none"> <li>■ Poor recall of words due to a lack of visual analysis and visual memory to store patterns as whole units for automatic recall</li> <li>■ Poor automatic recognition (fast mapping) of letter sequences for spelling</li> </ul> <p><i>Coexistent with ADHD, anxiety, and possible spectrum correlates</i></p>	<p><b>Orthographic Processing</b></p> <p>TOSWRF:  Test of Silent Word Reading Fluency  Test of Written Spelling-4 (for diagnostic purposes only)</p>	<p><b>Orthographic Processing</b></p> <p>1) Does the student use phonetic spellings of common nonphonetic sight words (e.g., said/sed)</p>	

	<p><b>Orthographic Processing</b>  <i>Note: assume decoding is intact and efficient, but if not, test to rule out core deficits.</i></p> <p><i>If listening comprehension is far weaker than reading comprehension, complete a speech and language evaluation</i></p>			
<p><b>Reading Comprehension/ Listening Comprehension</b>  Vocabulary  Syntax  Strategy Use  Metacognition</p>	<p><b>LANGUAGE PROCESSING weaknesses impact:</b></p> <ul style="list-style-type: none"> <li>➤ Vocabulary</li> <li>➤ Morphology</li> <li>➤ Syntactical knowledge</li> <li>➤ Understanding of complex text</li> </ul> <p><b>Weaknesses in working memory impact:</b></p> <ul style="list-style-type: none"> <li>➤ Learning new vocabulary from context</li> <li>➤ Inferencing</li> <li>➤ Understanding pronoun references</li> <li>➤ Understanding complex text</li> <li>➤ Comprehension monitoring</li> </ul>	<p><b>Language Processing</b>  Durrell Analysis of Reading Difficulty: oral, silent and listening comprehension subtests (Diagnostic measure)</p> <p><b>Working Memory</b>  TORC-3- Test of Oral Reading and Comprehension  Ages  TEEM Test for Examining Expressive Morphology  ages 6-8</p> <p>ARI- Analytical Reading Inventory (Woods and Moe)</p>	<p><b>Language Processing</b>  1) Does the student struggle to express and comprehend complex ideas?  2) Does the student speak with simplistic vocabulary and simple sentences?</p> <p><b>Working Memory</b>  Refer to questions for short-term and working memory</p>	

<p><b>Reading Comprehension/ Listening Comprehension</b> Vocabulary Syntax Strategy Use Metacognition</p>	<p><b>Weaknesses in higher order processing impact:</b></p> <ul style="list-style-type: none"> <li>➤ Schema development</li> <li>➤ Main ideas/details</li> <li>➤ .Text structure</li> <li>➤ Summarization</li> <li>➤ Metacognition</li> <li>➤ Elaboration</li> </ul>	<p><b>Higher Order Comprehension</b> TORC-3- Test of Oral Reading and Comprehension</p> <p>QRI-4 Qualitative Reading Inventory- 4</p> <p><b>Higher Order Comprehension</b></p> <p>ARI- Analytical Reading Inventory (Woods and Moe)</p> <p>GRADE- Group Reading Assessment and Diagnostic Education <a href="http://www.pearson.com">www.pearson.com</a></p>	<p><b>Higher Order Comprehension</b> 1) Does the student have difficulty when asked to summarize narrative and/or factual information from class discussion and/or reading?</p> <p><b>Higher Order Comprehension</b> 2) Does the student confuse main ideas with supporting details? 3) Does the student have a grasp of text structure? 4) Can the student verbalize text-to-self, text-to-text and text-to-world connections from reading materials? 5) Does the student have difficulty with self-questioning to monitor understanding? 6) Does the student demonstrate understanding of the author's intent?</p>	
<p><b>Written Expression/Oral Expression</b> Handwriting/Fluency Spelling/Mechanics Composition/ Cohesion</p>	<p><b>HANDWRITING/ FINE MOTOR FLUENCY:</b> Fine motor and linguistic deficits often students with ADHD and executive weaknesses</p> <p>Correlates to dysgraphia</p>	<p><b>Handwriting/ Fine Motor</b> WJ-III Writing Fluency for screening VMI-6 Developmental Test of Visual-Motor Integration: All three subtests</p>	<p><b>Handwriting</b> 1) Does the student form letters with unusual strokes? 2) Is his pencil hold awkward and inefficient? 3) Is the student's writing slow and</p>	

	<p><b>SPELLING/ MECHANICS:</b> handwriting intact; problems with punctuation, capitalization, syntax (Syntax/ Oral Expression) Simplistic, run-on, or</p> <p><b>SPELLING/ MECHANICS:</b> fragmented sentences in written work</p> <p>Correlates to deficits in oral expression and syntax</p>	<p><b>Spelling/ Mechanics</b> WJ-III Spelling &amp; Editing WIAT-II Applied Spelling &amp; Punctuation Quartile on Written Language subtest</p> <p><b>Spelling/ Mechanics</b> TEWL-3 Test of Early Written Language <b>DAB-3 Written Language</b> WIAT-II Written Language Composite for ages 10 and up TOWL- 3 For ages 8-11 Intra Composite variance critical</p>	<p><b>Handwriting</b> labored? 3) Does he avoid writing on every occasion?</p> <p><b>Spelling/ Mechanics</b> 1) Does the student omit or misrepresent sounds when spelling? 2) Does the student omit or transpose letters <b>Spelling/ Mechanics</b> and/or syllables when writing? 3) Is the student's writing devoid of most punctuation? (syntax) 4) Does the student fail to write in complete sentences or use mature vocabulary? 5) Does the student write in one long run-on sentence with fragments joined by the word <i>and</i> or <i>then</i>? 6) Does the student fail to use connecting (signal) words other than <i>and</i> or <i>then</i>? 7) Is the student unable to combine two simple sentences into one syntactically concise sentence? 8) Does the student struggle to incorporate a variety of sentence structures (simple, compound, complex)?</p>	
--	---	---	---	--



	<p><b>COMPOSITION/COHESION</b> Weaknesses related to executive and language processes. Lack of topic sentences, supporting details, coherence of argument Poor thematic continuity for narrative / expository writing</p>	<p><b>Composition/Cohesion</b> Same as above</p>	<p><b>Composition/Cohesion</b> 1) Can the student write a simple sentence on a topic or in relation to a picture or drawing? 2) Does the student struggle to write a story with characters, setting, rising action and resolution? <b>Composition/Cohesion</b> 3) Can the student write topic sentences with three supporting details independently? 4) Does the student have difficulty sequencing thoughts? basic theme? 5) Does the student write without attention to a basic theme and diverge from topic often? 6) Can the student write a simple summary of a story or brief text?</p>	
--	---	--	---	--